



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Northeast Regional Office • 205B Lowell Street, Wilmington MA 01887 • 978-694-3200

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Commissioner

May 18, 2017

Mr. Aditya Chinai
King Printing Company, Inc.
181 Industrial Ave. East
Lowell, MA 01852

RE: LOWELL
Transmittal No.: X272001
Application No.: NE-16-015
Class: ERP Mid-Size Printer
FMF No.: 312311
AIR QUALITY PLAN APPROVAL

Dear Mr. Chinai:

The Massachusetts Department of Environmental Protection (“MassDEP”), Bureau of Air and Waste, has reviewed your Limited Plan Application (“Application”) listed above. This Application concerns the proposed operation of three (3) digital inkjet web presses at your printing facility located at 181 Industrial Ave. East in Lowell, Massachusetts (“Facility”).

This Application was submitted in accordance with 310 CMR 7.02 Plan Approval and Emission Limitations as contained in 310 CMR 7.00 “Air Pollution Control” regulations adopted by MassDEP pursuant to the authority granted by Massachusetts General Laws, Chapter 111, Section 142 A-O, Chapter 21C, Section 4 and 6, and Chapter 21E, Section 6. MassDEP’s review of your Application has been limited to air pollution control regulation compliance and does not relieve you of the obligation to comply with any other regulatory requirements.

MassDEP has determined that the Application is administratively and technically complete and that the Application is in conformance with the Air Pollution Control regulations and current air pollution control engineering practice, and hereby grants this **Plan Approval** for said Application, as submitted, subject to the conditions listed below.

Please review the entire Plan Approval, as it stipulates the conditions with which the Facility owner/operator (“Permittee”) must comply in order for the Facility to be operated in compliance with this Plan Approval.

This information is available in alternate format. Contact Michelle Waters-Ekanem, Director of Diversity/Civil Rights at 617-292-5751.

TTY# MassRelay Service 1-800-439-2370

MassDEP Website: www.mass.gov/dep

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1. DESCRIPTION OF FACILITY AND APPLICATION

King Printing Company, Inc. ("Permittee") currently operates two (2) Hewlett-Packard (HP) T-350 digital inkjet web presses and one (1) HP T-240 digital inkjet web press at its Lowell printing Facility. In addition to these three digital presses, the Permittee operates a Heidelberg CD-74 offset lithographic sheetfed printing press which is subject to the Environmental Results Program (ERP) for lithographic, graphic arts, and screen printing under 310 CMR 7.26(20). The three digital presses are not applicable to the ERP regulations and are required to obtain a plan approval under 310 CMR 7.02.

The Permittee utilizes the digital inkjet presses to produce individual printed pages which are bound and finished as books. The covers are produced by the existing Heidelberg sheetfed offset lithographic printing press that is subject to the existing ERP requirements.

2. EMISSION UNIT (EU) IDENTIFICATION

Each Emission Unit (EU) identified in Table 1 is subject to and regulated by this Plan Approval:

Table 1			
EU#	Description	Design Capacity	Pollution Control Device (PCD)
Press 1-T350	HP T-350 Digital Inkjet Web Press	30" wide web; 600 ft/min	None
Press 2-T350	HP T-350 Digital Inkjet Web Press	30" wide web; 600 ft/min	None
Press 3-T240	HP T-240 Digital Inkjet Web Press	20" wide web; 500 ft/min	None

Table 1 Key:

EU# = Emission Unit Number

"= inches

ft/min = feet per minute

3. APPLICABLE REQUIREMENTS

A. OPERATIONAL, PRODUCTION and EMISSION LIMITS

The Permittee is subject to, and shall not exceed the Operational, Production, and Emission Limits as contained in Table 2:

Table 2			
EU#	Operational / Production Limit	Air Contaminant	Emission Limit
Press 1-T350, Press 2-T350, and Press 3-T240	Maximum VOC content of inks utilized by these EUs shall not exceed 1.30 pounds per gallon.	VOC	1.0 TPM 9.0 TPY
		Total HAPs	0.2 TPM 1.0 TPY

Table 2 Key:

EU# = Emission Unit Number

VOC = Volatile Organic Compounds

Total HAPs = Total Hazardous Air Pollutants

TPM = tons per month

TPY = tons per consecutive 12-month period

B. COMPLIANCE DEMONSTRATION

The Permittee is subject to, and shall comply with, the monitoring, testing, record keeping, and reporting requirements as contained in Tables 3, 4, and 5:

Table 3	
EU#	Monitoring and Testing Requirements
Press 1-T350, Press 2-T350, and Press 3-T240	1. The Permittee shall monitor material usage on a monthly basis such that records can be maintained of the emissions of VOCs and total HAPs to determine compliance status with the emission limits contained in Table 2 above.
	2. The Permittee shall monitor operations on a monthly basis such that records can be maintained to determine the compliance status of the Operational Limits detailed in Table 2 above.
Facility-wide	3. The Permittee shall monitor all operations to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
	4. If and when MassDEP requires it, the Permittee shall conduct emission testing in accordance with USEPA Reference Test Methods and Regulation 310 CMR 7.13.

Table 3 Key:

EU# = Emission Unit Number

USEPA = United States Environmental Protection Agency

MassDEP = Massachusetts Department of Environmental Protection

VOC = Volatile Organic Compounds

HAPs = Hazardous Air Pollutants

CMR = Code of Massachusetts Regulations

Table 4	
EU#	Record Keeping Requirements
Press 1-T350, Press 2-T350, and Press 3-T240	1. The Permittee shall maintain adequate records on-site to demonstrate compliance with all operational, production, and emission limits contained in Table 2 above. Records shall also include the actual emissions of air contaminant(s) emitted for each calendar month and for each consecutive twelve month period (current month plus prior eleven months). These records shall be compiled no later than the 15 th day following each month. An electronic version of the MassDEP approved record keeping form, in Microsoft Excel format, can be downloaded at http://www.mass.gov/dep/air/approvals/aqforms.htm#report .
	2. The Permittee shall maintain records of monitoring and testing as required by Table 3.
	3. The Permittee shall maintain a copy of this Plan Approval, underlying Application and the most up-to-date SOMPs for the EUs approved herein on-site.
	4. The Permittee shall maintain a record of routine maintenance activities performed on the approved EUs and monitoring equipment. The records shall include, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed.

Table 4	
EU#	Record Keeping Requirements
Press 1-T350, Press 2-T350, and Press 3-T240	5. The Permittee shall maintain a record of all malfunctions affecting air contaminant emission rates on the approved EUs and monitoring equipment. At a minimum, the records shall include: date and time the malfunction occurred; description of the malfunction; corrective actions taken; the date and time corrective actions were initiated and completed; and the date and time emission rates and monitoring equipment returned to compliant operation.
Facility-wide	6. The Permittee shall maintain records to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
	7. The Permittee shall maintain records required by this Plan Approval on-site for a minimum of five (5) years.
	8. The Permittee shall make records required by this Plan Approval available to MassDEP and USEPA personnel upon request.

Table 4 Key:

EU# = Emission Unit Number
SOMP = Standard Operating and Maintenance
Procedure
MassDEP = Massachusetts Department of
Environmental Protection

CMR = Code of Massachusetts Regulations
USEPA = United States Environmental Protection
Agency

Table 5	
EU#	Reporting Requirements
Facility-wide	1. The Permittee shall submit to MassDEP all information required by this Plan Approval over the signature of a "Responsible Official" as defined in 310 CMR 7.00 and shall include the Certification statement as provided in 310 CMR 7.01(2)(c).
	2. The Permittee shall notify the Northeast Regional Office of MassDEP, BAW Permit Chief by telephone: (978-694-3200), email at nero.air@state.ma.us or fax 978-694-3499, as soon as possible, but no later than three (3) business days after discovery of an exceedance(s) of Table 2 requirements. A written report shall be submitted to the Compliance and Enforcement Chief at MassDEP within ten (10) business days thereafter and shall include: identification of exceedance(s), duration of exceedance(s), reason for the exceedance(s), corrective actions taken, and action plan to prevent future exceedance(s).
	3. The Permittee shall provide a copy to MassDEP of any record required to be maintained by this Plan Approval within 30 days from MassDEP's request.

Table 5	
EU#	Reporting Requirements
Facility-wide	4. The Permittee shall submit to MassDEP for approval a stack emission pretest protocol, at least 60 days prior to emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements.
	5. The Permittee shall submit to MassDEP a final stack emission test results report, within 45 days after emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements.

Table 5 Key:

EU# = Emission Unit Number
CMR = Code of Massachusetts Regulations
MassDEP = Massachusetts Department of Environmental Protection
BAW = Bureau of Air and Waste

4. SPECIAL TERMS AND CONDITIONS

The Permittee is subject to, and shall comply with, the following special terms and conditions:

- A. The Permittee is subject to and shall comply with the Special Terms and Conditions as contained in Table 6:

Table 6	
EU#	Special Terms and Conditions
Press 1-T350, Press 2-T350, and Press 3-T240	1. The Permittee shall follow the Standard Operating and Maintenance Procedures (SOMPs) for the subject emission units so as to maintain its efficient operation and minimize both its VOC emissions and its HAPs emissions.
Facility-wide	2. All cleaning rags used in conjunction with the cleaning solutions shall be placed in tightly covered containers when not in use, and shall be collected for proper recycling or disposal.

Table 6	
EU#	Special Terms and Conditions
Facility-wide	3. All VOC containing and/or HAPs containing materials, such as solvents, inks, and clean-up solutions, shall be transported and stored in tightly covered containers. Any emissions associated with solvent and /or cleanup solutions shall be included in the monthly and 12 month rolling emissions calculations to determine the compliance status with emission limits contained in Table 2 above.
	4. The Permittee shall continue to investigate the feasibility of implementing alternative technologies or reformulated materials which will lead to the decrease of overall emissions from the Facility to the environment (air emissions, solvent waste, etc.). The Permittee shall seek assistance from outside sources such as suppliers, vendors, and the Office of Technical Assistance (which is located at the Executive Office of Energy and Environmental Affairs, 100 Cambridge Street, Boston, Massachusetts, telephone number 617-727-3260). Facility personnel shall record any information supplied to them relative to reducing overall emissions and pollutions prevention techniques. This information as well as any progress towards decreasing overall emission to the environment shall be recorded and maintained on-site.
	5. Any prior Plan Approvals issued under 310 CMR 7.02 shall remain in effect unless specifically changed or superseded by this Plan Approval. The Facility shall not exceed the emission limits and shall comply with approved conditions specified in the prior Plan Approval(s) unless specifically altered by this Plan Approval.

Table 6 Key:

EU# = Emission Unit Number
VOC = Volatile Organic Compounds
HAPs = Hazardous Air Pollutants

- B. The Permittee shall install and use an exhaust stack, as required in Table 7, on each of the Emission Units that is consistent with good air pollution control engineering practice and that discharges so as to not cause or contribute to a condition of air pollution. Each exhaust stack shall be configured to discharge the gases vertically and shall not be equipped with any part or device that restricts the vertical exhaust flow of the emitted gases, including but not limited to rain protection devices known as “shanty caps” and “egg beaters.”

- C. The Permittee shall install and utilize exhaust stacks with the following parameters, as contained in Table 7, for the Emission Units that are regulated by this Plan Approval:

Table 7				
EU#	Stack Height Above Ground (feet)	Stack Inside Exit Dimensions (feet)	Stack Gas Exit Velocity Range (feet per second)	Stack Gas Exit Temperature Range (°F)
Press 1-T350	25	1.5	45	350 - 400
Press 2-T350	20.42	1.375 x 1	57	350 - 400
Press 3-T240	18.375	1.375 x 1	24.1	350 - 400

Table 7 Key:

EU# = Emission Unit Number

°F = Degree Fahrenheit

5. GENERAL CONDITIONS

The Permittee is subject to, and shall comply with, the following general conditions:

- A. Pursuant to 310 CMR 7.01, 7.02, 7.09 and 7.10, should any nuisance condition(s), including but not limited to smoke, dust, odor or noise, occur as the result of the operation of the Facility, then the Permittee shall immediately take appropriate steps including shutdown, if necessary, to abate said nuisance condition(s).
- B. If asbestos remediation/removal will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that all removal/remediation of asbestos shall be done in accordance with 310 CMR 7.15 in its entirety and 310 CMR 4.00.
- C. If construction or demolition of an industrial, commercial or institutional building will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that said construction or demolition shall be done in accordance with 310 CMR 7.09(2) and 310 CMR 4.00.

- D. Pursuant to 310 CMR 7.01(2)(b) and 7.02(7)(b), the Permittee shall allow MassDEP and / or USEPA personnel access to the Facility, buildings, and all pertinent records for the purpose of making inspections and surveys, collecting samples, obtaining data, and reviewing records.
- E. This Plan Approval does not negate the responsibility of the Permittee to comply with any other applicable Federal, State, or local regulations now or in the future.
- F. Should there be any differences between the Application and this Plan Approval, the Plan Approval shall govern.
- G. Pursuant to 310 CMR 7.02(3)(k), MassDEP may revoke this Plan Approval if the construction work is not commenced within two years from the date of issuance of this Plan Approval, or if the construction work is suspended for one year or more.
- H. This Plan Approval may be suspended, modified, or revoked by MassDEP if MassDEP determines that any condition or part of this Plan Approval is being violated.
- I. This Plan Approval may be modified or amended when in the opinion of MassDEP such is necessary or appropriate to clarify the Plan Approval conditions or after consideration of a written request by the Permittee to amend the Plan Approval conditions.
- J. Pursuant to 310 CMR 7.01(3) and 7.02(3)(f), the Permittee shall comply with all conditions contained in this Plan Approval. Should there be any differences between provisions contained in the General Conditions and provisions contained elsewhere in the Plan Approval, the latter shall govern.

6. MASSACHUSETTS ENVIRONMENTAL POLICY ACT

MassDEP has determined that the filing of an Environmental Notification Form (ENF) with the Secretary of Energy & Environmental Affairs, for air quality control purposes, was not required prior to this action by MassDEP. Notwithstanding this determination, the Massachusetts Environmental Policy Act (MEPA) and 301 CMR 11.00, Section 11.04, provide certain “Fail-Safe Provisions,” which allow the Secretary to require the filing of an ENF and/or an Environmental Impact Report (EIR) at a later time.

7. APPEAL PROCESS

This Plan Approval is an action of MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date of issuance of this Plan Approval.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts, which are the grounds for the request, and the relief sought. Additionally, the request must state why the Plan Approval is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to the Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection
P.O. Box 4062
Boston, MA 02211

This request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

MassDEP may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

Enclosed is a stamped approved copy of the application submittal.

Should you have any questions concerning this Plan Approval, please contact Mr. Mun S. Wong by telephone at 978-694-3286, or in writing at the letterhead address.

Sincerely,

This final document copy is being provided to you electronically by the
Department of Environmental Protection. A signed copy of this document
is on file at the DEP office listed on the letterhead.

Susan Ruch
Deputy Regional Director
and Acting Permit Chief
Bureau of Air and Waste

This final document copy is being provided to you electronically by the
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Mun S. Wong
Environmental Engineer

cc: Board of Health, 341 Pine Street, Lowell, MA 01851
Fire Headquarters, 99 Moody Street, Lowell, MA 01852
MassDEP/Boston - Yi Tian (e-copy)
MassDEP/NERO - Ed Braczyk (e-copy)
MassDEP/NERO - Martha Bolis, Mary Persky (hard copy & e-copy)
Printing Industries of America, 301 Brush Creen Road, Warrendale, PA 15086 ATTN: Mr. Gary Jones